

respectively,

said end walls having a first height H1 to form a standoff or safe guard between the foot seating plane of said package and said terminal pins;

the outer portion of said side wall extending between said end walls and having a second height H2 which is less than said first height H1.

*Untd
Oval
S3
Contd*

Remarks

This Amendment A is submitted in response to the Office Action mailed October 8, 1998 in which the Examiner rejected Claims 1-8 under 35 USC 102(b) as anticipated by Renskers.

A claim is anticipated only when a single prior art reference discloses each and every limitation of the claims. Glaxo v. Novopharm, Ltd., 34 USPQ2d 1565, (Fed. Cir. 1995). The disclosure need not be express, but may anticipate by inherency where it would be appreciated by one of ordinary skill in the art. Continental Can Co. v. Monsanto Co., 20 USPQ2d 1746, (Fed Cir. 1991). Applicant submits that a section 102 rejection of the pending claims could not properly stand for the following reasons.

The electronic surface mount package according to the present invention includes a one piece construction package having end walls, a side wall and an open bottom; a plurality of toroid transformers carried within the package by a soft silicone material wherein the toroid transformers each have wires wrapped thereon; a plurality of terminal pins molded within and extending from the bottom of the package wherein each of the pins extend through a bottom portion of the side wall and have a notched post upon which the wires from said transformers are wrapped and soldered thereon, respectively; and wherein the end walls have a first height H1 to form a standoff or safe guard between the foot seating plane of the package and the terminal pins; and wherein the outer portion of the side wall extends between the end walls such that the side wall has a second height H2 which is less than said first height H1.

The outer portion of the extended side retaining wall provides for improved containment of the soft silicone material within the package. The outer portion of the extended side retaining wall also provides for improved coverage of the wire wrapped solder posts. In addition, since the height H2 of the extended side retaining wall is less than the height H1 of the safe guard, the mounting of the package onto a printed circuit board with the extended side retaining wall allows

for cleaning of the PCB with wash liquids which can flow freely under the package under the portion of the extended side wall which is less in height than the height of the safeguard (H2 < H1). These aspects are not believed to be shown in Renskers.

Renskers is for a dual-in-line package (DIP), which is for through-hole PCB (Printed Circuit Board) applications (the terminal pin 32 of the Renskers DIP package is inserted "through" a hole in a PCB), whereas applicant's invention is for surface mount packages (SMP) for mounting on or onto the surface of a PCB. "Onto" is defined as on top of; to a position on; upon: the Renskers terminal pins 32 are not mounted onto the surface of a PCB. The "other end" of applicant's terminal posts 14 extend in gull-wing like fashion below the bottom of package for mounting on a PCB. The other end 36 of Renskers is not for mounting on or onto the surface of a PCB as is applicant's "other end" 14.

Applicant submits that Renskers is not inherently capable of operating as a surface mount package as called for in the pending claims. The terminal pins 32 of Renskers are inserted through a hole in a PCB, and are not for mounting and soldering onto the surface of the PCB. This is believed to be clear to one of ordinary skill in the art. Applicant is submitting Exhibit A which shows the differences between (1) applicant's (Halo) invention mounted on a PCB (Figure 6 of the application) and (2) Figure 6 of the Renskers DIP package in which the terminal pins 32 would be inserted through a hole in a PCB.

In addition, applicant's terminal pins are molded within the package side wall, whereas the Renskers terminal pins are inserted and bonded with epoxy within channels formed within the side walls of the Renskers package. Clearly, Renskers does not disclose terminal pins molded within the side wall as called for in applicant's claims.

Using language from Renskers, the Renskers boxes (packages) are finally filled with encapsulant so as to embed, at least, the solder joints of the lead-lead leg connection 42 and the encapsulant cured. There is no such requirement for encapsulating (embedding) the terminal pins or solder posts 12 (the "one end") of the applicant's invention. Rather, applicant's soldered terminal pins or solder posts 12 (the "one end") extend below the bottom of the side wall, whereas the Renskers terminal pins are folded back into the cavity and encapsulated.

It is applicant's contention that Renskers solder leg 42 is the only component which could be characterized as a solder post as called for in the claims. The Renskers solder leg 42 is bent inward into the box so as to have a downward inclination so as to place the solder joints (the

solder leg 42) below the level of the sides of the box and inside the box (column 4, lines 10-24 of Renskers). Applicant has amended the claims to more clearly recite that the one end forms a solder post which extends below the bottom of the side wall, as shown in Figure 1. The Renskers solder joints are bent backward into the box and do not extend below the bottom of the side wall when placed in a DIP application (the Renskers solder joints are "above" the bottom of the side wall when used in a DIP application). In contrast, applicant's solder posts 12 extend through and below the bottom of the side wall. As shown in Exhibit A, applicant's SMP of Figure 6 of the drawings shows the solder posts extending below the bottom of the side wall when the package is mounted onto a PCB, whereas with Renskers, the solder leads are bent inward into the box and "above" the bottom of the side wall when the Renskers DIP package is placed with the terminal pins inserted through the holes in the PCB in normal DIP package configuration.

Applicant is submitting a copy of an Information Disclosure Statement mailed August 3, 1998 (copies of the cited references were submitted with that August 3, 1998 mailing and hence are not being submitted again). The Examiner is requested to make of record the references cited therein by notating by PTO-1449 form.

In view of the foregoing, it is believed that the present application is now in condition for allowance.

Respectfully submitted,

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By: Stephen E. Baldwin

Stephen E. Baldwin

Trial & Technology Law Group

545 Middlefield Road Suite 220

Menlo Park, CA 94025

(650) 324-2258